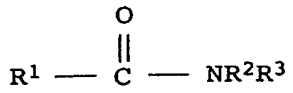
We claim:

1. An ampholytic copolymer obtainable by free-radical copolymerization of

a) at least one compound with a free-radically polymerizable, α,β-ethylenically unsaturated double bond and at least one anionogenic and/or anionic group per molecule,

b) at least one compound with a free-radically polymerizable, α,β-ethylenically unsaturated double bond and at least one cationogenic and/or cationic group per molecule,

c) at least one α,β-ethylenically unsaturated amide-group-containing compound of the formula I



(I)

in which

one of the radicals R^1 to R^3 is a group of the formula $CH_2=CR^4$- where R^4 = H or C_1-C_4-alkyl, and the other radicals R^1 to R^3, independently of one another, are H, alkyl, cycloalkyl, heterocycloalkyl, aryl or hetaryl,

where R^1 and R^2 together with the amide group to which they are bonded may also be a lactam with 5 to 8 ring atoms,

where R^2 and R^3 together with the nitrogen atom to which they are bonded may also be a five- to seven-membered heterocycle,

with the proviso that the sum of the carbon atoms of the radicals R^1, R^2 and R^3 is at most 8.

2. A copolymer as claimed in claim 1, where the quantitative molar ratio of compounds a) to compounds b) is in a range from 0.5:1 to less than 2:1, preferably from 0.7:1 to 1.8:1.

3. A copolymer as claimed in either of the preceding claims, where at least some of the compounds a) and b) are used in the form of a monomer

composition, where the molar ratio of anionogenic groups of component a) to cationogenic groups of component b) is about 1:1.

4. A copolymer as claimed in any of the preceding claims which additionally comprises, in copolymerized form, at least one further monomer d) which is chosen from esters of α,β-ethylenically unsaturated mono- and dicarboxylic acids with C_1-C_{30}-alkanols and C_1-C_{30}-alkanediols, amides of α,β-ethylenically unsaturated mono- and dicarboxylic acids with C_2-C_{30}-aminoalcohols which have a primary or secondary amino group, N-alkyl- and N,N-dialkylamides of α,β-ethylenically unsaturated monocarboxylic acids which, in addition to the carbonyl carbon atom of the amide group, have more than 8 further carbon atoms, esters of vinyl alcohol and allyl alcohol with C_1-C_{30}-monocarboxylic acids, vinyl ethers, vinylaromatics, vinyl halides, vinylidene halides, C_1-C_8-monoolefins, nonaromatic hydrocarbons with at least two conjugated double bonds, siloxane macromers and mixtures thereof.

5. A copolymer as claimed in any of the preceding claims, which additionally comprises, as component e), at least one polyether acrylate in copolymerized form.

6. A copolymer as claimed in any of the preceding claims, which is obtainable by free-radical copolymerization in the presence of a component g) which is chosen from

g1) polyether-containing compounds,

g2) polymers which have at least 50% by weight of repeat units which are derived from vinyl alcohol,

g3) cellulose, starch and derivatives thereof,

and mixtures thereof.

7. A copolymer as claimed in any of the preceding claims, where component a) is chosen from monoethylenically unsaturated carboxylic acids, sulfonic acids, phosphonic acids and mixtures thereof.

8. A copolymer as claimed in claim 7, where component a) is chosen from acrylic acid, methacrylic acid, ethacrylic acid, α-chloroacrylic acid, crotonic acid, maleic acid, maleic anhydride, fumaric acid, itaconic acid, citraconic

acid, mesaconic acid, glutaconic acid, aconitic acid, vinylsulfonic acid, allylsulfonic acid, sulfoethyl acrylate, sulfoethyl methacrylate, sulfopropyl acrylate, sulfopropyl methacrylate, 2-hydroxy-3-acryloxypropylsulfonic acid, 2-hydroxy-3-methacryloxypropylsulfonic acid, styrenesulfonic acid, 2-acrylamido-2-methylpropanesulfonic acid, vinylphosphonic acid and allylphosphonic acid and mixtures thereof.

9. A copolymer as claimed in claim 8, where component a) is chosen from acrylic acid, methacrylic acid and mixtures which comprise acrylic acid and/or methacrylic acid.

10. A copolymer as claimed in claim 8, where component a) is chosen from 2-acrylamido-2-methylpropanesulfonic acid and mixtures which comprise this.

11. A copolymer as claimed in any of the preceding claims, where component b) is chosen from esters of α,β-ethylenically unsaturated mono- and dicarboxylic acids with amino alcohols which may be mono- or dialkylated on the amine nitrogen, amides of α,β-ethylenically unsaturated mono- and dicarboxylic acids with diamines which have at least one primary or secondary amino group, N,N-diallylamine, N,N-diallyl-N-alkylamines and derivatives thereof, vinyl- and allyl-substituted nitrogen heterocycles, vinyl- and allyl-substituted heteroaromatic compounds and mixtures thereof.

12. A copolymer as claimed in claim 11, where component b) is chosen from N,N-dimethylaminoethyl (meth)acrylate, N,N-dimethylaminopropyl (meth)-acrylate, vinylimidazole, N-[3-(dimethylamino)propyl](meth)acrylamide, N-[tert-butyl)aminoethyl (meth)acrylate, N,N-diallylamine, N,N-diallyl-N-methylamine and mixtures thereof.

13. A copolymer as claimed in any of the preceding claims, where component c) is chosen from primary amides of α,β-ethylenically unsaturated monocarboxylic acids, N-vinylamides of saturated monocarboxylic acids, N-vinyllactams, N-alkyl- and N,N-dialkylamides of α,β-ethylenically unsaturated monocarboxylic acids and mixtures thereof.

14. A copolymer as claimed in claim 13, where component c) is chosen from acrylamide, methacrylamide, N-vinylpyrrolidone, N-vinylcaprolactam, N-vinylformamide, N-vinylacetamide and mixtures thereof.

15. A copolymer as claimed in any of the preceding claims, which additionally

comprises, in copolymerized form, at least one free-radically polymerizable crosslinking compound f with at least two α,β-ethylenically unsaturated double bonds per molecule.

16. A copolymer as claimed in any of claims 1 to 15, which consists of repeat units of
- vinylpyrrolidone,
- acrylic acid and/or methacrylic acid,
- dimethylaminoethyl methacrylate or dimethylaminopropylmethacrylamide or vinylimidazole or tert-butylaminoethyl methacrylate and
- at least one polyether acrylate.

17. A copolymer as claimed in any of claims 1 to 15, which consists of repeat units of
- vinylpyrrolidone,
- 2-acrylamido-2-methylpropanesulfonic acid,
- dimethylaminoethyl methacrylate or dimethylaminopropylmethacrylamide or vinylimidazole or tert-butylaminoethyl methacrylate and
- at least one polyether acrylate.

18. A copolymer as claimed in any of claims 1 to 15, which consists of repeat units of
- vinylpyrrolidone,
- acrylamide and/or methacrylamide,
- acrylic acid and/or methacrylic acid,
- dimethylaminoethyl methacrylate or dimethylaminopropylmethacrylamide or vinylimidazole or tert-butylaminoethyl methacrylate and
- at least one polyether acrylate.

19. A copolymer as claimed in any of claims 1 to 15, which consists of repeat units of
- vinylpyrrolidone,
- acrylamide and/or methacrylamide,
- 2-acrylamido-2-methylpropanesulfonic acid,
- dimethylaminoethyl methacrylate or dimethylaminopropylmethacrylamide or vinylimidazole or tert-butylaminoethyl methacrylate and
- at least one polyether acrylate.

20. A copolymer as claimed in any of claims 1 to 15, which consists of repeat units of
- vinylpyrrolidone,
- acrylic acid and/or methacrylic acid,
- dimethylaminoethyl methacrylate or dimethylaminopropylmethacylamide or vinylimidazole or tert-butylaminoethyl methacrylate and
- at least one polyether acrylate,
- at least one monomer of the formula

$$CH_2\text{-}CR^c\text{-}C(=O)\text{-}O\text{-}R^d$$

in which
R^c is H or methyl and
R^d is linear C_1-C_4-alkyl.

21. A copolymer as claimed in any of claims 1 to 15, which consists of repeat units of
- vinylpyrrolidone,
- 2-acrylamido-2-methylpropanesulfonic acid,
- dimethylaminoethyl methacrylate or dimethylaminopropylmethacrylamide or vinylimidazole or tert-butylaminoethyl methacrylate and
- at least one polyether acrylate,
- at least one monomer of the formula

$$CH_2=CR^c\text{-}C(=O)\text{-}O\text{-}R^d$$

in which
R^c is H or methyl and
R^d is linear C_1-C_4-alkyl.

22. A copolymer as claimed in any of claims 1 to 15, which consists of repeat units of
- vinylpyrrolidone,
- acrylamide and/or methacrylamide,
- acrylic acid and/or methacrylic acid,
- dimethylaminoethyl methacrylate or dimethylaminopropylmethacrylamide or vinylimidazole or tert-butylaminoethyl methacrylate and
- at least one polyether acrylate,
- at least one monomer of the formula

$$CH_2=CR^c\text{-}C(=O)\text{-}O\text{-}R^d$$

in which

R^c is H or methyl and
R^d is linear C_1-C_4-alkyl.

23. A copolymer as claimed in any of claims 1 to 15, which consists of repeat units of
- vinylpyrrolidone,
- acrylamide and/or methacrylamide,
- 2-acrylamido-2-methylpropanesulfonic acid,
- dimethylaminoethyl methacrylate or dimethylaminopropylmethacrylamide or vinylimidazole or tert-butylaminoethyl methacrylate and
- at least one polyether acrylate,
- at least one monomer of the formula

$$CH_2=CR^c\text{-}C(=O)\text{-}O\text{-}R^d$$

in which
R^c is H or methyl and
R^d is linear C_1-C_4-alkyl.

24. A copolymer as claimed in any of claims 16 to 23 which additionally comprises a salt of 2-acrylamido-2- methylpropanesulfonic acid, preferably the sodium salt, in copolymerized form.

25. A copolymer as claimed in any of claims 16 to 24, which additionally comprises a quaternized monomer containing amine groups, preferably quaternized vinylimidazole, in copolymerized form.

26. A copolymer as claimed in any of claims 16 to 25, which additionally comprises up to 1% by weight, based on the total weight of the monomers used for the polymerization, of at least one crosslinker in copolymerized form.

27. A polyelectrolyte complex comprising at least one ampholytic copolymer, as defined in any of claims 1 to 26, and at least one further polyelectrolyte different therefrom.

28. A cosmetic or pharmaceutical composition comprising

A) at least one ampholytic copolymer, as defined in any of claims 1 to 26, or a polyelectrolyte complex, as defined in claim 27, and

B) at least one cosmetically acceptable carrier.

29. A composition as claimed in claim 28, where component B) is chosen from

i) water,

ii) water-miscible organic solvents, preferably C_1-C_4-alkanoles,

iii) oils, fats, waxes,

iv) esters of C_6-C_{30}-monocarboxylic acids with mono-, di- or trihydric alcohols different from iii),

v) saturated acyclic and cyclic hydrocarbons,

vi) fatty acids,

vii) fatty alcohols

and mixtures thereof.

30. A composition as claimed in any of claims 28 or 29, further comprising at least one constituent different from component A) which is chosen from cosmetically active ingredients, emulsifiers, surfactants, preservatives, perfume oils, thickeners, hair polymers, hair and skin conditioners, graft polymers, water-soluble or dispersible silicone-containing polymers, light protection agents, bleaches, gel formers, care agents, colorants, tinting agents, tanning agents, dyes, pigments, bodying agents, moisturizers, refatting agents, collagen, protein hydrolyzates, lipids, antioxidants, defoamers, antistats, emollients and softeners.

31. A composition as claimed in any of claims 28 to 30 in the form of a gel, foam, spray, an ointment, cream, emulsion, suspension, lotion, milk or paste.

32. The use of a polymer, as defined in any of claims 1 to 26, or of a polyelectrolyte complex, as defined in claim 27, in skin-cleansing compositions, compositions for the care and protection of the skin, nail care compositions, preparations for decorative cosmetics and hair-treatment compositions.

33. The use as claimed in claim 32 in hair-treatment compositions as setting

agent and/or as conditioner.

34. The use as claimed in claim 33, where the composition is in the form of a hair gel, shampoo, setting foam, hair tonic, hair spray or hair foam.

35. The use of a polymer, as defined in any of claims 1 to 26, or of a polyelectrolyte complex, as defined in claim 27, as auxiliary in pharmacy, preferably as or in (a) coating(s) for solid medicaments, for the modification of rheological properties, as surface-active compound, and as or in (a) coating(s) for the textile, paper, printing and leather industry.

We claim:

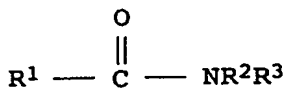
1. A cosmetic or pharmaceutical composition comprising

A) at least one ampholytic copolymer obtainable by free-radical copolymerization of

a) at least one compound with a free-radically polymerizable, α,β-ethylenically unsaturated double bond and at least one anionogenic and/or anionic group per molecule,

b) at least one compound with a free-radically polymerizable, α,β-ethylenically unsaturated double bond and at least one cationogenic and/or cationic group per molecule,

c) at least one α,β-ethylenically unsaturated amide-group-containing compound of the formula I



(I)

in which

one of the radicals R^1 to R^3 is a group of the formula $CH_2=CR^4$- where R^4 = H or C_1-C_4-alkyl, and the other radicals R^1 to R^3, independently of one another, are H, alkyl, cycloalkyl, heterocycloalkyl, aryl or hetaryl,

where R^1 and R^2 together with the amide group to which they are bonded may also be a lactam with 5 to 8 ring atoms,

where R^2 and R^3 together with the nitrogen atom to which they are bonded may also be a five- to seven-membered heterocycle,

with the proviso that the sum of the carbon atoms of the radicals R^1, R^2 and R^3 is at most 8,

or a polyelctrolyte complex comprising at least one of said ampholytic copolymers and at least one further polyelectrolyte different therefrom, and

B) at least one cosmetically acceptable carrier.

2. A composition as claimed in claim 1, where the quantitative molar ratio of compounds a) to compounds b) is in a range from 0.5:1 to less than 2:1, preferably from 0.7:1 to 1.8:1.

3. A composition as claimed in either of the preceding claims, where at least some of the compounds a) and b) are used in the form of a monomer composition, where the molar ratio of anionogenic groups of component a) to cationogenic groups of component b) is about 1:1.

4. A composition as claimed in any of the preceding claims which additionally comprises, in copolymerized form, at least one further monomer d) which is chosen from esters of α,β-ethylenically unsaturated mono- and dicarboxylic acids with C_1-C_{30}-alkanols and C_1-C_{30}-alkanediols, amides of α,β-ethylenically unsaturated mono- and dicarboxylic acids with C_2-C_{30}-aminoalcohols which have a primary or secondary amino group, N-alkyl- and N,N-dialkylamides of α,β-ethylenically unsaturated monocarboxylic acids which, in addition to the carbonyl carbon atom of the amide group, have more than 8 further carbon atoms, esters of vinyl alcohol and allyl alcohol with C_1-C_{30}-monocarboxylic acids, vinyl ethers, vinylaromatics, vinyl halides, vinylidene halides, C_1-C_8-monoolefins, nonaromatic hydrocarbons with at least two conjugated double bonds, siloxane macromers and mixtures thereof.

5. A composition as claimed in any of the preceding claims, which additionally comprises, as component e), at least one polyether acrylate in copolymerized form.

6. A composition as claimed in any of the preceding claims, which is obtainable by free-radical copolymerization in the presence of a component g) which is chosen from

g1) polyether-containing compounds,

g2) polymers which have at least 50% by weight of repeat units which are derived from vinyl alcohol,

g3) cellulose, starch and derivatives thereof,

and mixtures thereof.

7. A composition as claimed in any of the preceding claims, where component a) is chosen from monoethylenically unsaturated carboxylic acids, sulfonic acids, phosphonic acids and mixtures thereof.

8. A composition as claimed in claim 7, where component a) is chosen from acrylic acid, methacrylic acid, ethacrylic acid, α-chloroacrylic acid, crotonic acid, maleic acid, maleic anhydride, fumaric acid, itaconic acid, citraconic acid, mesaconic acid, glutaconic acid, aconitic acid, vinylsulfonic acid, allylsulfonic acid, sulfoethyl acrylate, sulfoethyl methacrylate, sulfopropyl acrylate, sulfopropyl methacrylate, 2-hydroxy-3-acryloxypropylsulfonic acid, 2-hydroxy-3-methacryloxypropylsulfonic acid, styrenesulfonic acid, 2-acrylamido-2-methylpropanesulfonic acid, vinylphosphonic acid and allylphosphonic acid and mixtures thereof.

9. A composition as claimed in claim 8, where component a) is chosen from acrylic acid, methacrylic acid and mixtures which comprise acrylic acid and/or methacrylic acid.

10. A composition as claimed in claim 8, where component a) is chosen from 2-acrylamido-2-methylpropanesulfonic acid and mixtures which comprise this.

11. A composition as claimed in any of the preceding claims, where component b) is chosen from esters of α,β-ethylenically unsaturated mono- and dicarboxylic acids with amino alcohols which may be mono- or dialkylated on the amine nitrogen, amides of α,β-ethylenically unsaturated mono- and dicarboxylic acids with diamines which have at least one primary or secondary amino group, N,N-diallylamine, N,N-diallyl-N-alkylamines and derivatives thereof, vinyl- and allyl-substituted nitrogen heterocycles, vinyl- and allyl-substituted heteroaromatic compounds and mixtures thereof.

12. A composition as claimed in claim 11, where component b) is chosen from N,N-dimethylaminoethyl (meth)acrylate, N,N-dimethylaminopropyl (meth)-acrylate, vinylimidazole, N-[3-(dimethylamino)propyl](meth)acrylamide, N-[tert-butyl)aminoethyl (meth)acrylate, N,N-diallylamine, N,N-diallyl-N-methylamine and mixtures thereof.

13. A composition as claimed in any of the preceding claims, where component c) is chosen from primary amides of α,β-ethylenically unsaturated monocarboxylic acids, N-vinylamides of saturated monocarboxylic acids, N-vinyllactams, N-alkyl- and N,N-dialkylamides of

α,β-ethylenically unsaturated monocarboxylic acids and mixtures thereof.

14. A composition as claimed in claim 13, where component c) is chosen from acrylamide, methacrylamide, N-vinylpyrrolidone, N-vinylcaprolactam, N-vinylformamide, N-vinylacetamide and mixtures thereof.

15. A composition as claimed in any of the preceding claims, which additionally comprises, in copolymerized form, at least one free-radically polymerizable crosslinking compound f with at least two α,β-ethylenically unsaturated double bonds per molecule.

16. A composition as claimed in any of claims 1 to 15, which consists of repeat units of

- vinylpyrrolidone,
- acrylic acid and/or methacrylic acid,
- dimethylaminoethyl methacrylate or dimethylaminopropylmethacrylamide or vinylimidazole or tert-butylaminoethyl methacrylate and
- at least one polyether acrylate.

17. A composition as claimed in any of claims 1 to 15, which consists of repeat units of

- vinylpyrrolidone,
- 2-acrylamido-2-methylpropanesulfonic acid,
- dimethylaminoethyl methacrylate or dimethylaminopropylmethacrylamide or vinylimidazole or tert-butylaminoethyl methacrylate and
- at least one polyether acrylate.

18. A composition as claimed in any of claims 1 to 15, which consists of repeat units of

- vinylpyrrolidone,
- acrylamide and/or methacrylamide,
- acrylic acid and/or methacrylic acid,
- dimethylaminoethyl methacrylate or dimethylaminopropylmethacrylamide or vinylimidazole or tert-butylaminoethyl methacrylate and
- at least one polyether acrylate.

19. A composition as claimed in any of claims 1 to 15, which consists of repeat units of

- vinylpyrrolidone,

- acrylamide and/or methacrylamide,
- 2-acrylamido-2-methylpropanesulfonic acid,
- dimethylaminoethyl methacrylate or dimethylaminopropylmethacrylamide or vinylimidazole or tert-butylaminoethyl methacrylate and
- at least one polyether acrylate.

20. A composition as claimed in any of claims 1 to 15, which consists of repeat units of

- vinylpyrrolidone,
- acrylic acid and/or methacrylic acid,
- dimethylaminoethyl methacrylate or dimethylaminopropylmethacylamide or vinylimidazole or tert-butylaminoethyl methacrylate and
- at least one polyether acrylate,
- at least one monomer of the formula

$$CH_2\text{-}CR^c\text{-}C(=O)\text{-}O\text{-}R^d$$

in which
R^c is H or methyl and
R^d is linear C_1-C_4-alkyl.

21. A composition as claimed in any of claims 1 to 15, which consists of repeat units of

- vinylpyrrolidone,
- 2-acrylamido-2-methylpropanesulfonic acid,
- dimethylaminoethyl methacrylate or dimethylaminopropylmethacrylamide or vinylimidazole or tert-butylaminoethyl methacrylate and
- at least one polyether acrylate,
- at least one monomer of the formula

$$CH_2{=}CR^c\text{-}C(=O)\text{-}O\text{-}R^d$$

in which
R^c is H or methyl and
R^d is linear C_1-C_4-alkyl.

22. A composition as claimed in any of claims 1 to 15, which consists of repeat units of

- vinylpyrrolidone,
- acrylamide and/or methacrylamide,
- acrylic acid and/or methacrylic acid,
- dimethylaminoethyl methacrylate or dimethylaminopropylmethacrylamide or vinylimidazole or tert-

butylaminoethyl methacrylate and

- at least one polyether acrylate,
- at least one monomer of the formula

$$CH_2=CR^c-C(=O)-O-R^d$$

in which
R^c is H or methyl and
R^d is linear C_1-C_4-alkyl.

23. A composition as claimed in any of claims 1 to 15, which consists of repeat units of

- vinylpyrrolidone,
- acrylamide and/or methacrylamide,
- 2-acrylamido-2-methylpropanesulfonic acid,
- dimethylaminoethyl methacrylate or dimethylaminopropylmethacrylamide or vinylimidazole or tert-butylaminoethyl methacrylate and
- at least one polyether acrylate,
- at least one monomer of the formula

$$CH_2=CR^c-C(=O)-O-R^d$$

in which
R^c is H or methyl and
R^d is linear C_1-C_4-alkyl.

---

24. A composition as claimed in any of claims 16 to 23 which additionally comprises a salt of 2-acrylamido-2- methylpropanesulfonic acid, preferably the sodium salt, in copolymerized form.

25. A composition as claimed in any of claims 16 to 24, which additionally comprises a quaternized monomer containing amine groups, preferably quaternized vinylimidazole, in copolymerized form.

26. A composition as claimed in any of claims 16 to 25, which additionally comprises up to 1% by weight, based on the total weight of the monomers used for the polymerization, of at least one crosslinker in copolymerized form.

27. A composition as claimed in any of the preceding claims, where component B) is chosen from

i) water,

ii) water-miscible organic solvents, preferably C_1-C_4-alkanoles,

iii) oils, fats, waxes,

iv) esters of C_6-C_{30}-monocarboxylic acids with mono-, di- or trihydric alcohols different from iii),

v) saturated acyclic and cyclic hydrocarbons,

vi) fatty acids,

vii) fatty alcohols

and mixtures thereof.

28. A composition as claimed in any of the preceding claims, further comprising at least one constituent different from component A) which is chosen from cosmetically active ingredients, emulsifiers, surfactants, preservatives, perfume oils, thickeners, hair polymers, hair and skin conditioners, graft polymers, water-soluble or dispersible silicone-containing polymers, light protection agents, bleaches, gel formers, care agents, colorants, tinting agents, tanning agents, dyes, pigments, bodying agents, moisturizers, refatting agents, collagen, protein hydrolyzates, lipids, antioxidants, defoamers, antistats, emollients and softeners.

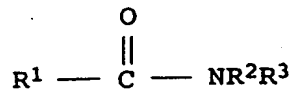
29. A composition as claimed in any of the preceding claims in the form of a gel, foam, spray, an ointment, cream, emulsion, suspension, lotion, milk or paste.

30. An ampholytic copolymer obtainable by free-radical copolymerization of

a) at least one compound with a free-radically polymerizable, α,β-ethylenically unsaturated double bond and at least one anionogenic and/or anionic group per molecule,

b) at least one compound with a free-radically polymerizable, α,β-ethylenically unsaturated double bond and at least one cationogenic and/or cationic group per molecule,

c) at least one α,β-ethylenically unsaturated amide-group-containing compound of the formula I



(I)

in which

one of the radicals R^1 to R^3 is a group of the formula $CH_2=CR^4$- where R^4 = H or C_1-C_4-alkyl, and the other radicals R^1 to R^3, independently of one another, are H, alkyl, cycloalkyl, heterocycloalkyl, aryl or hetaryl,

where R^1 and R^2 together with the amide group to which they are bonded may also be a lactam with 5 to 8 ring atoms,

where R^2 and R^3 together with the nitrogen atom to which they are bonded may also be a five- to seven-membered heterocycle,

with the proviso that the sum of the carbon atoms of the radicals R^1, R^2 and R^3 is at most 8, where component c) is chosen from N-vinylamides of saturated monocarboxylic acids, N-vinyllactams, N-alkyl- and N,N-dialkylamides of α,β-ethylenically unsaturated monocarboxylic acids and mixtures thereof.

31. A polyelectrolyte complex comprising at least one ampholytic copolymer, as defined in claim 30, and at least one further polyelectrolyte different therefrom.

32. The use of a polymer, as defined in claim 30, or of a polyelectrolyte complex, as defined in claim 31, in skin-cleansing compositions, compositions for the care and protection of the skin, nail care compositions, preparations for decorative cosmetics and hair-treatment compositions.

33. The use as claimed in claim 32 in hair-treatment compositions as setting agent and/or as conditioner.

34. The use as claimed in claim 33, where the composition is in the form of a hair gel, shampoo, setting foam, hair tonic, hair spray or hair foam.

35. The use of a polymer, as defined in claim 30, or of a polyelectrolyte complex, as defined in claim 31, as auxiliary in pharmacy, preferably as or in (a) coating(s) for solid medicaments, for the modification of rheological properties, as surface-active compound, and as or in (a) coating(s) for the

textile, paper, printing and leather industry.